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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,938	01/09/2006	Karel H Leffelaar	TS6587/US	5839
30522 7590 11/18/2008 KRATON POLYMERS U.S. LLC WESTHOLLOW TECHNOLOGY CENTER 3333 HIGHWAY 6 SOUTH HOUSTON, TX 77082				
EXAMINER DUCHENEAUX, FRANK D				
ART UNIT		PAPER NUMBER		
4152				
NOTIFICATION DATE		DELIVERY MODE		
11/18/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

kratonip@kraton.com

Office Action Summary

Application No.

10/538,938

Applicant(s)

LEFFELAAR ET AL.

Examiner

FRANK D. DUCHENEAUX

Art Unit

4152

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/14/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-32 is/are pending in the application.
- 4a) Of the above claim(s) 15-24 and 26-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CIS-300)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 6/14/2005

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claim 25 in the reply filed on 10/14/2008 is acknowledged.

Information Disclosure Statement

2. The information disclosure statement filed 6/14/2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. The examiner notes that the missing NPL document refers to Dillman, S.H.; PSTC Tech XIV, Technical Seminar Proceedings, May 1991, pg 119-137.

Specification

3. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

4. The abstract of the disclosure is objected to because the last four lines are superfluous and should be removed. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. **Claim 25** rejected under 35 U.S.C. 103(a) as being obvious over Lechat et al.

(International Publication No. WO 02/00806 A2) in further view of Delme et al. (International Publication No. WO 02/00787 A1).

Regarding claim 25, the applicant(s) claim packaging tapes comprising an *adhesive composition* that comprises:

a)

i) a *linear tetrablock copolymer S-I-S-I'*, of predominantly styrene(S) and isoprene (I and I') having an *apparent* molecular weight in the range of from 205,000 to 225,000.

ii) wherein *both* predominantly poly(styrene) blocks have an *apparent* molecular weight of from 10,000 to 12,000.

iii) wherein the *intermediate* S-I diblock copolymer has an *apparent* molecular weight in the range of from 130,000 to 185,000.

iv) wherein the *intermediate* S-I-S triblock copolymer has an *apparent* molecular weight in the range of from 145,000 to 195,000.

v) wherein the *poly(styrene) content* is in the range of from 14 to 16 wt%;

b) at least one tackifying resin in an amount of from 50 to 150 parts by weight per 100 parts by weight of block copolymers;

c) optionally a naphthenic or paraffinic oil in an amount of from 0 to 50 parts by weight per 100 parts by weight of block copolymers; and

d) optionally an antioxidant and/or other auxiliaries, in an amount from 0.1 to 10 parts by weight per 100 parts by weight of block copolymer.

Lechat teaches *adhesives* with improved die-cutting performance (title) comprising a *tackified styrenic* block copolymer, the copolymer comprising a *tetrablock* copolymer which is used as a *hot melt* (page 6, lines 5-7 and lines 10-11) and that the tetrablock copolymers are preferably composed of styrenic blocks (S) and polyisoprene blocks (I) in an *SISI* configuration (page 6, lines 21-23). Lechat continues to teach that the tetrablock copolymers have an average molecular weight of from 51,000 to 270,000 and that the styrenic blocks have a molecular weight of at least 8,000 and at most 20,000 (page 7, lines 24-25). Lechat further teaches that the isoprene blocks have a molecular weight of at least 15,000 and at most 150,000 or at least 20,000 and at most 80,000 (page 7, lines 30-31) and that the tetrablock copolymer contains a *styrene content* of from 10-27 wt% (page 6, lines 6-7).

Lechat teaches that inventive adhesive *tackifiers* are used (page 9, lines 29-30) including resins (page 10, lines 23-25) and that the tackifier is present from 50% based on the total weight of tackifier and copolymer (page 10, lines 29-30).

Lechat also teaches that the inventive additives include *plasticizer oils* such as SHELLFLEX 317 (a *naphthenic oil*) (page 10, lines 25-26) and that adhesive formulations contain well-known additives such as *antioxidants* (page 15, lines 20-21), wherein an embodiment of the invention recites 0.4wt% of Irganox 1076 (*antioxidant*) was added (page 19, lines 5-6).

The teachings of Lechat render obvious the invention as claimed by applicant considering that the ranges for the molecular weight(mw) for the SISI tetrablock copolymer (51,000 – 270,000); that for the styrene blocks (8,000-20,000) and the isoprene blocks (15,000-150,000 or 20,000-80,000); and that for the SI (23,000 – 170,000) and SIS (31,000-190,000) intermediates, as taught by Lechat, encompass the molecular weight ranges as claimed by applicant ($SISI_{mw} = 205,000-225,000$; $S_{mw} = 10,000-12,000$; $SI_{mw} = 130,000-185,000$; $SIS_{mw} = 145,000-195,000$). Additionally, Lechat teaches the ranges of the wt% for the styrene between 10-27%, which encompasses the ranges as claimed by applicant(s). Furthermore, the applicant(s) claim that at least one tackifying resin is in an amount of 50 to 150 parts by weight per 100 parts by weight of copolymer is rendered obvious by Lechat teaching that the tackifier is present from 50% based on the total weight of tackifier and copolymer. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to adjust the result effective variables (e.g. molecular weights of isoprene content to vary the copolymer flexibility) to obtain adhesive compositions with predictable qualities. See also *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Lechat fails to teach that said SISI block copolymers are *linear*. However, Delme teaches *linear SISI tetrablock copolymers* (page 2, lines 7-8) and that said copolymers are particularly useful due to their flowability (page 3, lines 2-3). Lechat teaches need for an adhesive to flow away from the cut point and not reform over the cut line (page 4, lines 9-11) and that the more readily the adhesive flows the easier and cleaner the cut will be (page 5, lines 25-26). Therefore, it would have been obvious to one of ordinary skill in

the art at the time of the invention to configure the elastomeric (copolymers) component of the adhesive as taught by Lechat in the linear configuration as taught by Delme towards improving an adhesive composition for a packaging tape that would provide the tape with a more efficient severance.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANK D. DUCHENEAUX whose telephone number is (571)270-7053. The examiner can normally be reached on M-Th, 7:30 A.M. - 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Del Sole can be reached on (571)272-1130. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FDD

/Joseph S. Del Sole/
Supervisory Patent Examiner, Art Unit 4152